

REMARKS

The office action of March 14, 2007, has been carefully considered.

It is noted that the disclosure is objected to for containing various informalities.

Claims 1, 2, 4-7, 9 and 12-16 are rejected under 35 U.S.C. 103(a) over DE 19843038 to Bender et al. in view of JP 11226625 to Miyaguchi and the patent to Kamino et al.

Claim 3 is rejected under 35 U.S.C. 103(a) over Bender et al., Miyaguchi and Kamino et al., and further in view of JP 06-212278 to Nakada et al.

Claim 8 is rejected under 35 U.S.C. 103(a) over Bender et al., Miyaguchi and Kamino et al., and further in view of the patent to Eguchi et al.

Claims 10 and 11 are rejected under 35 U.S.C. 103(a) over Bender et al., Miyaguchi and Kamino et al., and further in view of the patents to Groch and Schaming.

In connection with the Examiner's objection to the application, applicant has previously amended the specification to delete reference to claim numbers. Applicant points out that the amendments were to the text with the amended pages of the international application incorporated therein.

In view of these considerations it is respectfully submitted that the objection to the application is overcome and should be withdrawn.

In view of the Examiner's rejections of the claims, applicant has canceled claims 3 and 4, and amended claim 1.

It is respectfully submitted that the claims presently on file differ essentially and in an unobvious, highly advantageous manner from the constructions disclosed in the references.

Turning now to the references, they have all been discussed at length in a prior amendment and those arguments are incorporated herein by reference. The following additional comments are provided.

Bender et al. do disclose spray jets between the rollers. However, they do not disclose spray tubes which are as small as possible so as to permit a small as possible spacing of the rollers. Bender et al. also do not disclose that the rollers have elongated pins of small diameter which permit the water which cannot run off through the tight space between the rollers to run off over the reduced diameter pins.

Miyaguchi discloses a cooling zone device in a hot rolling mill. Although Miyaguchi discloses a cooling zone, there is no mention of how this cooling zone functions. Furthermore, although the figures of Miyaguchi show rollers with elongated pins, there is no mention of why there is such a construction or what benefits the construction provides. There is discussion of the gap B between the rollers, but it is not clear if the discussion refers

to the gap between the balls of the rollers or only the gap between the elongated pins, or the total gap. Since Miyaguchi does not discuss the reasons for providing a reduced diameter of the rollers, applicant submits that there is no motivation for reducing the diameter in device of another reference.

The patent to Kamio et al. discloses an apparatus for continuously cooling heated metal plate.

The Examiner combined Kamio et al. with Bender et al. and Miyaguchi in determining that claims 1, 2, 4-7, 9 and 12-16 would be unpatentable over such a combination. Applicant respectfully submits that there is no motivation for combining the references as argued by the Examiner. Miyaguchi makes no mention of why the pins of the rollers are elongated and have a reduced diameter. Thus, one skilled in the art would have no motivation for using such a construction in the Bender et al. device when looking to improve the runoff of water. The only suggestion for making such a combination comes from the teachings of the present application. Furthermore, even if the references are combinable, the

combination does not teach the invention as recited in the claims presently on file. Specifically, the combination does not teach a device in which the lower cooling bars are arranged below the spaces remaining between the rollers, wherein spray tubes of the cooling bars fit into these spaces; and the rollers of the roller table have elongated pins of small diameter so as to permit cooling water which cannot run off through the spacing between the rollers to run off over the small diameter pins, as in the presently claimed invention. Furthermore, the combination does not teach that the cooling bars have a pear-shaped cross section, whose neck is directed towards the spaces remaining between the rollers and is furnished with the spray tubes, and further wherein the neck of the pear-shaped cross section of the cooling bars is terminated by a retaining strip, which is fitted with spray tubes and advantageously is interchangeable, wherein the free end of each spray tube is fitted with a nozzle, as in the presently claimed invention.

In view of these considerations it is respectfully submitted that the rejection of claims 1, 2, 4-7, 9 and 12-16 under 35

U.S.C. 103(a) over a combination of the above-discussed references is overcome and should be withdrawn.

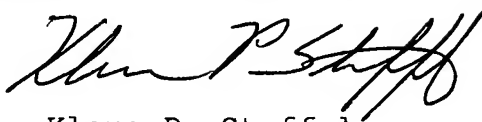
The remaining references which were cited in various combinations with Bender et al., Miyaguchi and Kamino et al. have also been considered. Applicant submits that none of these references add anything to the primary references so as to suggest the present invention as recited in the independent claim now on file and as discussed previously.

In view of these considerations it is respectfully submitted that the rejections of claims 3, 8, 10 and 11 under 35 U.S.C. 103(a) are overcome and should be withdrawn.

Reconsideration and allowance of the present application are respectfully requested.

Any additional fees or charges required at this time in connection with this application may be charged to Patent and Trademark Office Deposit Account No. 11-1835.

Respectfully submitted,

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Dated: June 14, 2007

CERTIFICATE OF MAILING

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to: Commissioner for Patents, PO Box 1450 Alexandria, VA 22313-1450, on June 14, 2007.

By: 
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Date: June 14, 2007